Canon

PUB. DIE-0408-000B



Canon XF Utility

Instruction Manual

Mac OS

Version 1.3

Table of Contents

About Canon XF Utility

Canon XF Utility offers various options for managing and playing back clips recorded with Canon HD camcorders compatible with MXF files. Following are some of the things that Canon XF Utility lets you do.

Checking and playing back clips	Display a list of all the clips recorded on a CF card, search the list and play back clips.
Saving and writing back clips	Save clips that were recorded on a CF card to the computer, or write back previously saved clips from the computer onto a CF card.
Creating and editing User Memo profiles	Create, edit and save User Memo profiles on SD memory cards. Later, you can load a User Memo file from the SD memory card to the camcorder and embed this information with the clips you record.

Conventions in the Manual

❗	Important precautions related to the software's operation.
ⓘ	Additional information that complements the main procedure.
📖	Reference page number in this instruction manual.
File > **Open**	This font is used to indicate menu options and commands, as they appear onscreen.

- For brevity's sake, throughout the manual the application will be referred to simply as "XF Utility".
- For the most part, screens shown in this manual were captured on a computer running Mac OS X, ver. 10.6. Actual screens may differ slightly.

Disclaimers

- This software was developed for exclusive use with clips recorded with Canon HD camcorders compatible with MXF files. It should not be used to handle clips recorded or edited using other devices.
- While every effort has been made to ensure that the information contained in this manual is accurate and complete, Canon shall not be liable for any damages resulting from corrupted or lost data due to mistaken operation or malfunction of the software.
- Your camcorder may not support all of the features and functions described in this manual. Screens show clips recorded using a Canon EOS C300 camcorder.
- The software records internal operations, including full path information of the clips used, on a log file kept on the hard disk. The information recorded will be used only for the purpose of providing technical support in case of a problem with the software.

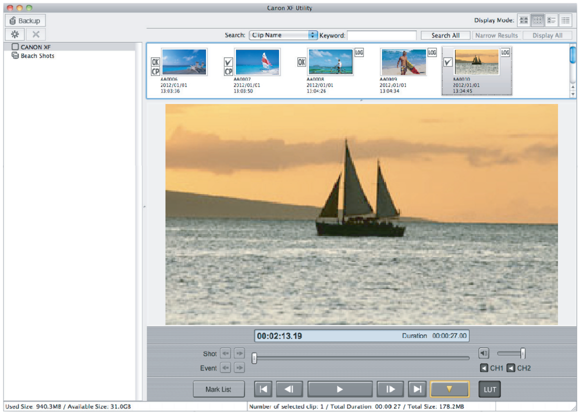
Running XF Utility

Starting Up XF Utility

Click on the Canon XF Utility icon on the dock. After a short while, the application's main window will appear.



Click



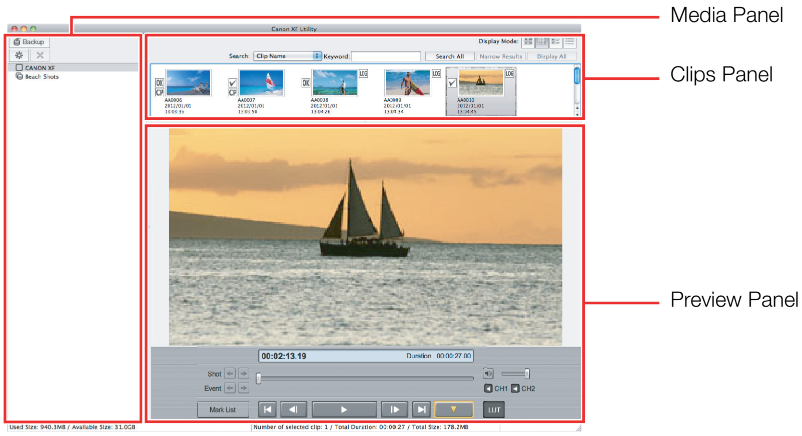
NOTES

- Multiple instances of XF Utility cannot be opened simultaneously.

Exiting XF Utility

Using the menu: Click **Canon XF Utility** > **Quit Canon XF Utility**.
From the main window: Click the (Close) icon on the top left corner of the window.

Overview of the Main Window

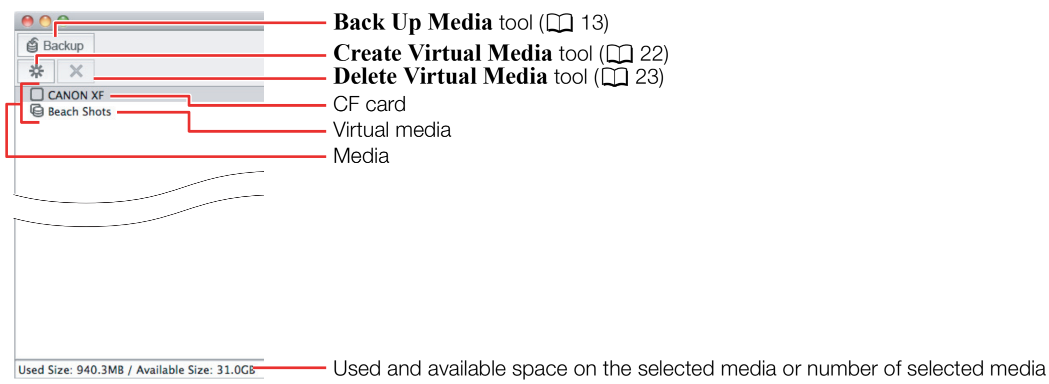


Media Panel	Shows a list of CF cards and virtual media (📖 22) –folders on the computer that can be used in the same way as CF cards–. In the manual, CF cards and virtual media are collectively referred to as “media”.
Clips panel	Shows a list of the clips saved in the selected media. You can change the display mode of this panel (📖 9).
Preview panel	Using the playback buttons, you can play back the clip selected in the clips panel (📖 17). You can also use some editing functions, for example to add or delete shot marks (📖 25).

Media panel

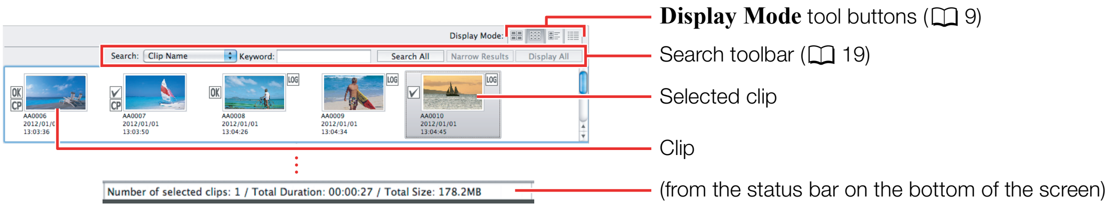
Shows a list of connected CF cards and available virtual media. You can click on the tool buttons on the top of the panel to backup media and to create or delete virtual media. To the far left of the status bar you will see the space in use and the available space on the selected media*. When multiple media are selected, the number of media selected will be displayed instead.

* When a virtual media is selected, the status bar will show the used/available space on the hard disk that contains the selected virtual media.



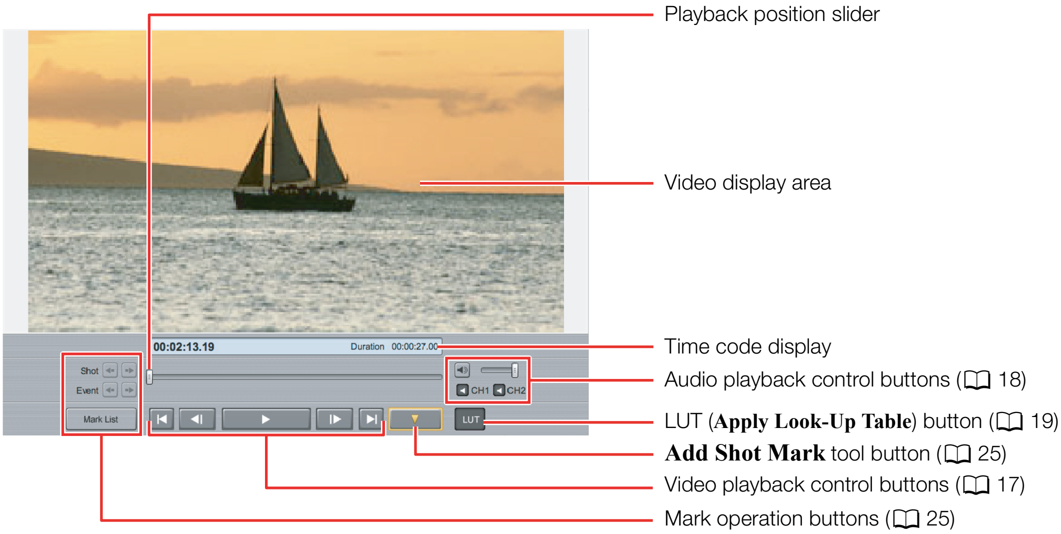
Clips panel

Shows a list of the clips recorded on the media selected in the media panel. You can change the way the clips are displayed in the panel using the display mode tool buttons, or use the search toolbar to search or filter clips by different criteria. In the center of the status bar you will see information regarding the number of selected clips and their total duration and file size.



Preview panel

In this panel you can use the playback buttons to play back the clips you have selected. Additionally, you can check all the marks registered in the clip and edit shot marks.



Using CF Cards

After you have finished recording video with your camcorder, you can use a computer to read, access and save the clips it contains.

Reading a CF card with the computer

Connect a commercially available card reader compatible with CompactFlash memory cards to your computer. Start up XF Utility and then insert the CF card into the card reader. When the CF card is correctly recognized*, it will appear in the list of available media in the media panel.

* Only CF cards that were initialized using the camcorder and have the designated folder structure will be correctly recognized.

NOTES

- Use of a commercially-available, UDMA-compatible card reader is recommended.

Removing a CF card from the computer

1. In the media panel, select the CF card you want to remove.
2. Click **File** > **Eject** to safely terminate the connection to the CF card.
   - The CF card will disappear from the media panel, and XF Utility will no longer be able to access it.
   - You can also control (^) -click on the CF card icon in the media panel and select **Eject** from the contextual menu that opens.
3. Remove the CF card from the card reader.

Using the Camcorder Directly

If your camcorder features a USB terminal, you can connect the camcorder directly to a computer using a USB cable. In such case, if CF cards are inserted in both CF card slots, both CF cards will appear in the media panel at the same time and you will be able the access and work on clips from both media.

Connecting a camcorder equipped with a USB terminal to the computer

1. Power the camcorder using the compact power adapter.
   - If you only want to read clips from the CF cards in the camcorder and do not need to write onto them, you can connect the camcorder even if it is powered only by a battery pack.
2. Turn on the camcorder and set it in MEDIA mode.
   - Insert the CF cards that contain the clips you want to check into the camcorder in advance.
3. Start up XF Utility.
4. Connect the camcorder to the computer using a USB cable.
   - Use the optional IFC-400PCU USB cable or similar mini-B USB cable.
   - The CF cards in the camcorder will appear in the media panel as CF A, CF B.

Disconnecting the camcorder from the computer

1. In the media panel, select the icon of the CF A card.
2. Click **File** > **Eject** to safely terminate the connection to the CF card.
   - The CF card will disappear from the media panel, and XF Utility will no longer be able to access it.
   - You can also control (^) -click on the CF card icon in the media panel and select **Eject** from the contextual menu that opens.
   - If there are two CF cards in the camcorder, repeat steps 1 and 2 to eject the second card (CF B) in a similar manner.
3. Disconnect the USB cable from the camcorder and the computer and turn off the camcorder.

IMPORTANT

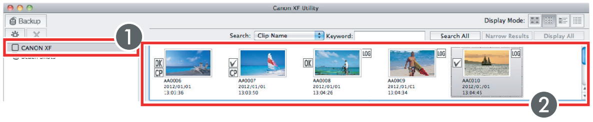
- Please observe the following precautions. Failing to do so may result in permanent data loss.

  When a CF card appears in the media panel:
  - Do not remove the CF card or the CF card reader without safely ejecting the media first.
  - Do not access, change or delete any of the CF card’s folders or files directly from the computer. Always save clips on the computer and write back clips onto the CF card using only XF Utility.

  When the camcorder is connected directly to the computer:
  - Do not open any of the CF card slot covers and do not remove the CF cards.
  - Do not disconnect the USB cable without safely ejecting the camcorder first.
  - Do not turn off the camcorder or the computer.

Clip List View

When you select a CF card or a virtual media in the media panel (❶), a list of all the clips in the media will appear in the clips panel (❷). When you select multiple media, all of the clips they contain will be displayed in the clips area.



Changing the way clips are displayed

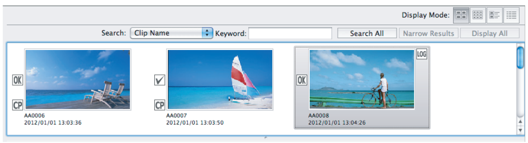
You can change the way clips appear in the clips panel using the **Display Mode** tool buttons or the options in the **View** menu.

Large Thumbnails — Shows large thumbnails of the clips and for each clip, the clip's name and date and time of recording.

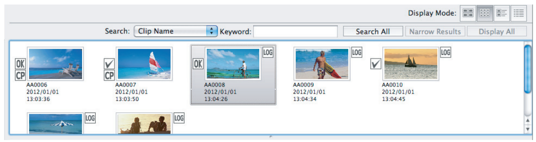
Small Thumbnails — Shows small thumbnails of the clips and for each clip, the clip's name and date and time of recording.

Thumbnails with Information — Shows thumbnails of the clips and for each clip, the clip's name, date and time of recording, start time code, duration, video bit rate, resolution and frame rate.

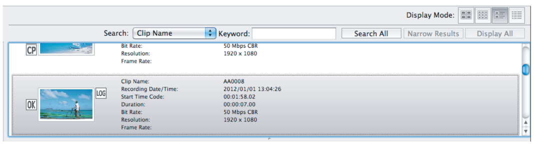
Detailed Information — By default, shows the following information about each clip in a tabular format: clip name, media name, date and time of recording, duration, start time code, status, clip title, creator, location and description. You can customize the information displayed for each clip (📖 11).



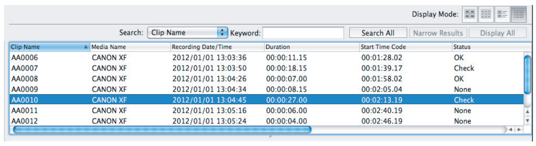
Large thumbnails



Small thumbnails



Thumbnails with information



Detailed information

NOTES

- Thumbnails of clips recorded using Canon Log gamma will show the image before any adjustments, as originally recorded. The appearance of the thumbnail image will not change even after applying a LUT to play back the clip (📖 19).

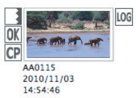
Icons displayed on thumbnails

When you change the display mode to one of the views that display thumbnails, the following icons may appear next to the thumbnail to give you additional information about the clip.

Relay recording icon	Appears for clips created when you continuously record video spanning two or more CF cards. The icon displayed depends on the position of the clip in the series: first clip, clip in the middle, or last clip. You can choose to display only clips that are part of the same relay recording series (📖 20).
Status icon OK, ☑	Appears for clips that were tagged with an OK mark or a ☑ mark in the camcorder itself, or using XF Utility.
Custom Picture icon CP	Appears for clips that contain an embedded custom picture file. When you select a clip with a CP icon, you can display the detailed settings of the embedded custom picture file (📖 12).
Canon Log gamma icon LOG	Appears for clips that were recorded using the Canon Log gamma function.



Icons next to large thumbnails

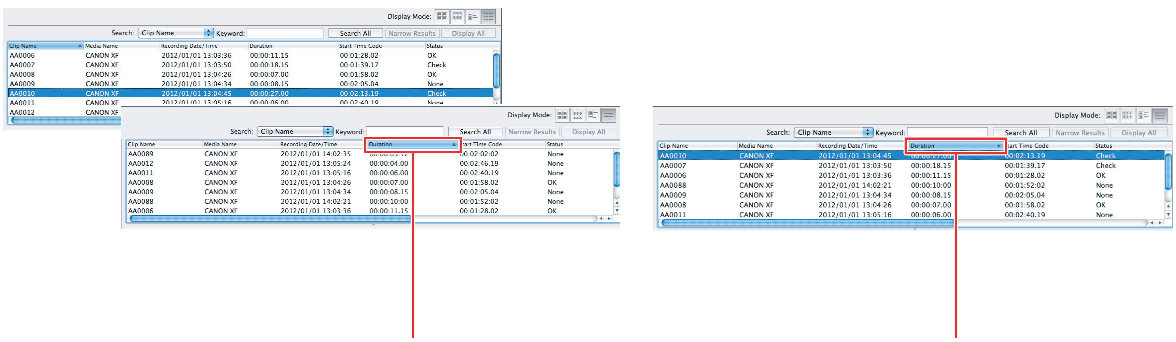


Icons next to small thumbnails

Sorting clips in detailed information view

When you choose to display the list of clips in detailed information view, you can click a column's title to sort the clips in ascending order by the selected field*. Click again to sort the clips in descending order.

* Clips cannot be sorted by **Status** field.



Click a column's title to sort the clips by a different field

Click again to sort in descending order

Selecting the columns shown in detailed information view

You can customize the information displayed in detailed information view by adding or removing columns and rearranging the order in which they are displayed.

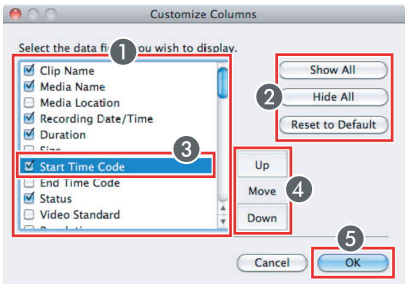
1. Click **View** > **Customize Columns**.

2. Select the fields you want to display in detailed information view.
   - Check the fields you want to display and remove the checkmark from fields you do not want to display (❶). Scroll down to view all the available fields.
   - You can use one of the quick-selection buttons (❷): **Show All** to display all the information about the clip, **Hide All** to display only the clip name*, or **Reset to Default** to show only the information displayed by default (🕮 9).

   * The **Clip Name** column cannot be removed.

3. If necessary, rearrange the order of the displayed columns.
   - Click on a field from the list of available fields (❸) and use the **Move** buttons (❹) to move the field: Click **Up** to move the field up the list (move the column left), or **Down** to move the field down the list (move the column right).

4. Click **OK** (❺) to apply the changes to the detailed information view.



Displaying Additional Details About a Clip

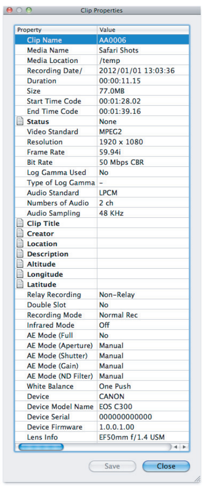
In addition to the clips panel, you can open three other information windows that offer a large number of additional details about a selected clip. These windows do not require any user input (they are modeless dialog boxes) so you can have them open all the time and use them as a reference while you work on the clips in the main window.

Clip Properties Displays general information about the clip, including the date and time of recording, the clip's duration, settings used while recording (resolution, video bit rate, etc.), User Memo profile and more.

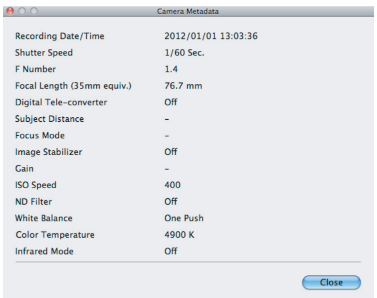
Camera Metadata Displays information about the camcorder's settings (shutter speed, aperture, focus mode, gain, ISO speed, white balance, etc.) used when recording the frame shown in the video display area. During playback, the information will be continuously updated.

Custom Picture Displays information about the custom picture settings used when recording the clip. If the clip was recorded without using custom picture settings, only the clip name will be displayed.

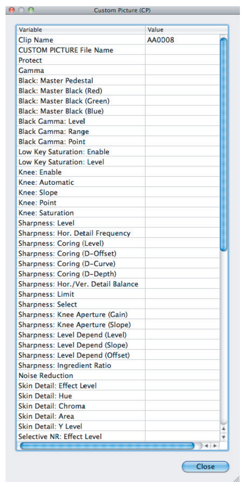
1. Select a clip in the clips panel.
2. Click **View** > **Clip Properties** to display the clip properties' window, **View** > **Camera Metadata** to display the metadata window or **View** > **Custom Picture** to display the custom picture settings' window.
   - You can also control (^) -click on a clip in the clips panel and select the desired window from the contextual menu that opens.



Clip properties



Camera metadata



Custom picture

NOTES

- Fields with a icon next to them (**Status**, and User Memo fields like **Clip Title** or **Location** in the **Clip Properties** window) are the only fields that can be edited using XF Utility (26). All other fields are for informational purposes only and cannot be changed.

Importing and Writing Back Clips

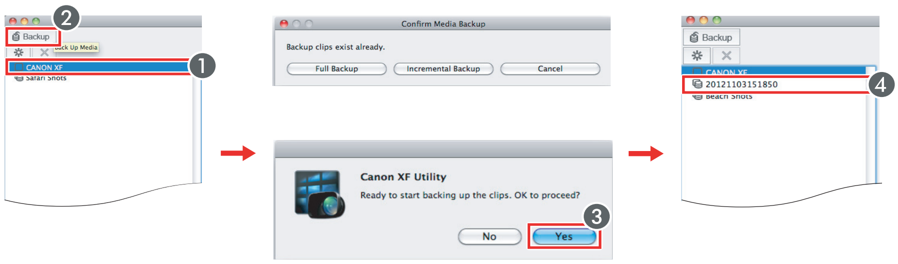
Importing Clips into the Computer

You can import clips from a CF card displayed in the media panel to the computer. You can import all the clips at once or select which clips to import. You can also select multiple CF cards to import in one go all the clips they contain.

Importing all clips at once (Media Backup)

You can import all the clips contained in a CF card at once by backing up the CF card. When you back up a CF card, a virtual media is created automatically.

1. In the media panel, select the CF card you want to back up (1).
2. Click **Backup** (the **Back Up Media** tool, 2).
   - You can also use the menu by clicking **File** > **Back Up Media**.
3. Only when backing up a CF card that has already been backed up previously, you will be asked to select the type of backup you want to create.
   - Select **Full Backup** to import all the clips again or **Incremental Backup** to back up only those clips that have not been imported previously.
4. Click **Yes** (3).
   - A virtual media will be created automatically (4) and the clips will be copied to the local folder on the computer.
   - If in step 3 you selected the **Incremental Backup** option, any new clips will be copied to the folder used for the original backup.
   - Click **Cancel** to interrupt the operation.
   - When the backup operation is completed, a confirmation dialog box will show the name automatically given to the virtual media. (The name of the virtual media represents the date and time of the backup operation.)
5. Click **OK**.



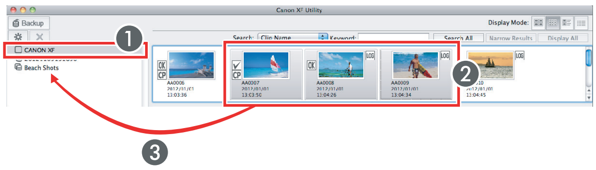
NOTES

- You can select the local folder used for backup files. Click **Canon XF Utility** > **Preferences**.
- If you prefer, you can rename virtual media later on (📖 23).
- Depending on the system used (the computer's performance specifications, transfer rate of the CF card, etc.), importing clips can take some time.

Importing selected clips

You can select which clips to import to the computer from the clips recorded on a CF card. In such case, you will need to create in advance a virtual media in the local folder on the computer where you want to save the clips.

1. If necessary, create a new virtual media (📖 22).
2. In the media panel, select the CF card that contains the clips you want to import (❶).
   - You can select multiple CF cards.
3. In the clips panel, select the clips you want to import (❷).
   - To select multiple, non-successive clips: Click the desired clips while holding the ⌘ key (⌘ + Click).
   - To select multiple, successive clips: Click the first clip and then click the last clip while holding the Shift (⇧) key (Shift + Click).
   - To select all clips: Click **Edit** > **Select All**.
4. Drag the selected clips to the icon of the desired virtual media in the media panel (❸).
   - The selected clips will be copied to the local folder corresponding to the selected virtual media.
   - Click **Cancel** to interrupt the operation.



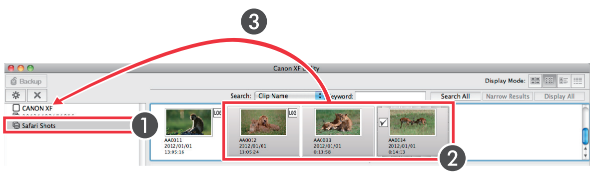
NOTES

- Depending on the system used (the computer's performanc e specifications, transfer rate of the CF card, etc.), importing clips can take some time.

Writing Back Clips onto CF Cards

You can transfer clips from the computer back onto a CF card in a card reader connected to the computer. If your camcorder features a USB terminal, you can connect the camcorder to the computer and transfer clips directly from the computer back to a CF card in the camcorder.

1. In the media panel, select the virtual media that contains the clips you want to write back (❶).
2. In the clips panel, select the clips you want to write back (❷).
   - Use Shift + Click or ⌘ + Click to select multiple clips or click **Edit** > **Select All** to select all clips.
3. Drag the selected clips to the icon of the desired CF card in the media panel (❸).
   - To write clips back onto the camcorder, connect the camcorder to the computer and drag the selected clips to one of the CF cards in the camcorder.
   - The selected clips will be copied to the CF card.
   - Click **Cancel** to interrupt the operation.
   - You can also use the menu by clicking **Edit** > **Copy** and **Edit** > **Paste**.



IMPORTANT

- While writing back to the camcorder clips that were previously saved on the computer, please observe the following precautions. Failing to do so may result in corrupted clips that cannot be played back on the camcorder.
  - Do not remove the CF card and do not remove the CF card reader from the computer.
  - Do not open any of the CF card slot covers on the camcorder.
  - Do not disconnect the USB cable.
  - Do not turn off the camcorder or the computer.

NOTES

- Initialize the CF card using the camcorder before writing back the clips to the CF card. If you initialize the CF card using a computer or another device, you will not be able to use it for recording or playback with the camcorder.
- Use of a commercially-available, UDMA-compatible card reader is recommended.
- Depending on the system used (the computer's performance specifications, transfer rate of the CF card, etc.), writing back clips can take some time.
- To be able to write back clips to the camcorder, power the camcorder using the compact power adapter and only then connect it to the computer. Clips cannot be written back to the camcorder if it was connected to the computer while it was powered only by a battery pack.

Exporting MXF Files to a Folder

You can export MXF stream files* of your clips and save them on a local folder on the computer. When you export clips as MXF files, you will have the option to merge multiple clips, to rename the MXF stream files and to change the audio output characteristics of the clips. You can then edit these files with any non-linear editing (NLE) software that supports Canon MXF files. For details about using MXF stream files, refer to the instruction manual of the video editing software.

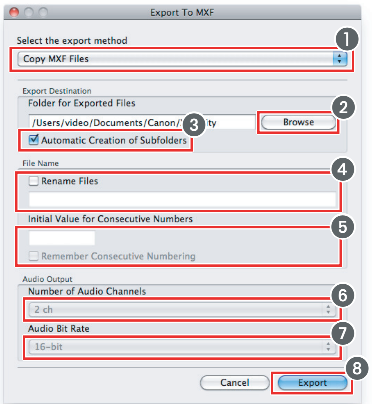
* MXF (Material eXchange Format) is an SMPTE-defined container specification that includes video, audio, metadata and other information.

1. In the clips panel, select the desired clips.
   - Use Shift + Click or ⌘ + click to select multiple clips.
2. Click **Edit** > **Export To MXF**.
   - The **Export To MXF** dialog box will appear.
3. Select the way the files will be exported from the pull-down menu (❶).

Copy MXF Files	Copies the original MXF stream files exactly as they are.
Merge All Clips	Merges the MXF stream files within each clip and also merges multiple selected clips into a single file.
Merge Each Clip	Merges the MXF stream files within each clip but keeps multiple selected clips as separate files.

4. To change the folder where the exported MXF files will be saved, click **Browse** and then select the **Folder for Exported Files** (❷).
   - By default, a new subfolder will be created automatically for the exported files. The name of the subfolder represents the date and time of the export operation. To export the MXF files directly into the selected destination folder, remove the checkmark from the **Automatic Creation of Subfolders** box (❸).

5. To rename the exported files, check the **Rename Files** box and enter the desired file name in the field below it (4).
   - To number multiple MXF files consecutively enter the starting number in the **Initial Value for Consecutive Numbers** field (5). You can check the **Remember Consecutive Numbering** box below it to automatically continue the consecutive numbering also for future export operations.
6. If in step 3 you selected one of the merge options, you can change the way audio is exported in the following step; otherwise, skip to step 8.
7. Select the **Number of Audio Channels** (6) and the **Audio Bit Rate** (7) from the respective pull-down menus.
   - When you set **Number of Audio Channels** to **4 ch** or **8 ch**, 2 or 6 audio tracks will be added to the original files and mute data will be recorded in these additional tracks. The default **2 ch** will not add any audio tracks to the original audio tracks.
   - When you set **Audio Bit Rate** to **24-bit**, the original audio will be converted from 16-bit to 24-bit audio.
8. Click **Export** (8).
   - When the operation is completed, a confirmation dialog box will show the name automatically given to the destination folder.
9. Click **OK**.

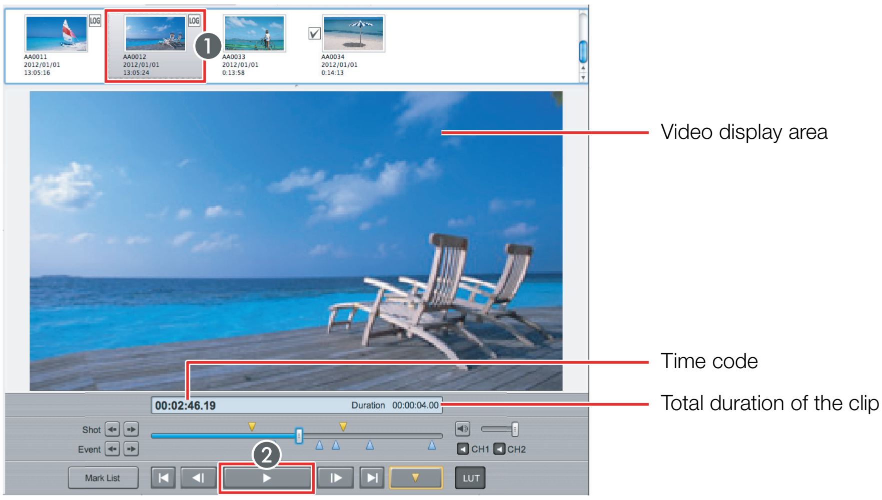


Playing Back, Searching and Managing Clips

Playing Back Clips

You can play back the clip currently selected in the clips panel.

1. In the clips panel, select the clip you want to play back (❶).
   - The video display area will show the first frame from the clip.
2. Click [▶] to start the playback (❷) or double-click the clip in the clips area.
   - The playback position slider and time code display will advance as the clip is played back.
   - During the clip's playback, the ▶ button will change to ❚❚.
3. Click [❚❚] to stop the playback.
   - Selecting a different clip in the clips panel will also stop the playback of the current clip.



IMPORTANT

- Several factors, including your computer's performance and the transfer rate of the CF card, can affect the playback quality. In certain cases, for example when playing back clips in the camcorder when it is connected directly to the computer, you may notice some of the following anomalies.
  - Playback is not smooth and frames are dropped.
  - The displayed time code does not match the actual frame being displayed.
  - Parts of the screen freeze or take longer to be refreshed.

  If you experience such anomalies while playing back clips from a CF card, import the clips into the computer and play back the clips from the local virtual media.

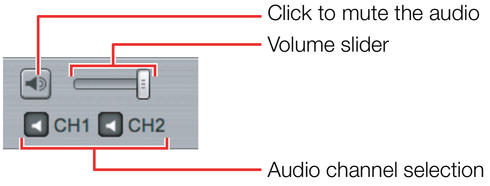
NOTES

- When the input focus* is on the clips panel, media panel or the playback position slider in the preview panel, you can press the space key to start/stop the playback.

* "Input focus" refers to the window or item that can receive keyboard input from the user.

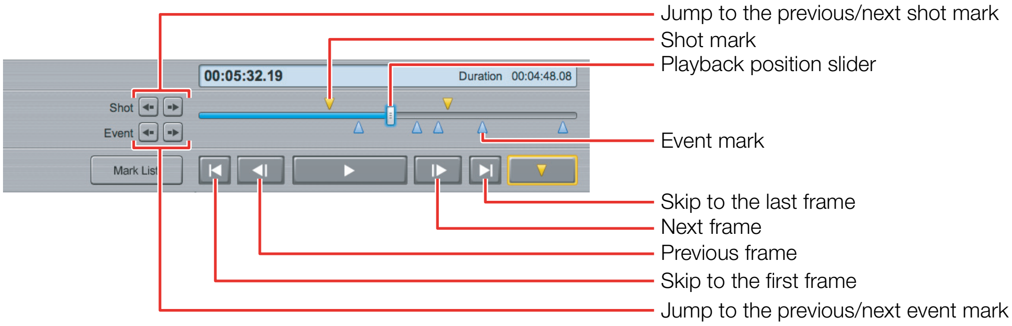
Adjusting the volume and selecting output channels

Drag the volume slider to adjust the playback volume. You can click [mute icon] to temporarily mute the sound ([muted icon]). Click on the audio channel selection buttons (**CH1** or **CH2**) to select the audio channel that will be played back.



Changing the playback position

You can change the playback position during playback or in playback pause mode in the following ways.

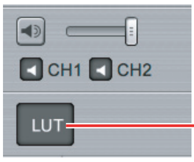


Mouse operation	Keyboard shortcut 1*	Keyboard shortcut 2*	Action
[Skip to first frame button]	home (↖)	S	Skip to the first frame of the clip.
[Skip to last frame button]	end (↘)	X	Skip to the last frame of the clip.
[Previous frame button]	← arrow	A	Go back one frame.
[Next frame button]	→ arrow	Z	Advance one frame.
Shot [previous]	shift (⇧) + ←	D	Jump to the previous shot mark (📖 25) in the clip.
Shot [next]	shift (⇧) + →	C	Jump to the next shot mark in the clip.
Event [previous]	control (^) + shift (⇧) + ←	F	Jump to the previous event mark (📖 25) in the clip.
Event [next]	control (^) + shift (⇧) + →	V	Jump to the next event mark in the clip.
Playback position slider	—		Drag it to bring the playback position to the desired frame.
[Shot mark]	—		Click to jump directly to the selected shot mark.
[Event mark]	—		Click to jump directly to the selected event mark.

* Use keyboard shortcut 1 when the input focus is on the playback position slider in the preview panel. Use keyboard shortcut 2 when the input focus is on the media panel, clips panel, or playback position slider in the preview panel.

Playing back clips recorded using Canon Log gamma

Clips that were recorded using Canon Log gamma will look darker when played back in their original form. When playing back such clips (marked by the LOG icon in the clips panel), you can click LUT or press the **B** key to apply a LUT (lookup table), which is a color profile that will let you see the video closer to how it could appear in your final results.
The Canon Log gamma function is available only in some camcorder models.



Click to apply a LUT to clips recorded with Canon Log gamma

Changing the clip's thumbnail

By default the image used for the thumbnails displayed in the clips panel is the first frame from the clip. However, if you prefer so, you can select a different frame to use as the thumbnail image.

1. In the clips panel, select the clip whose thumbnail you want to change.
2. In the preview panel, pause the playback at the frame you want to use as the thumbnail's image.
3. Click **Edit** > **Set Thumbnail Picture**.

NOTES

- In some cases, the actual frame used for the thumbnail's image may be off by up to 0.5 second from the selected frame.

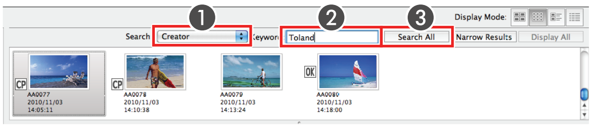
Searching for Clips

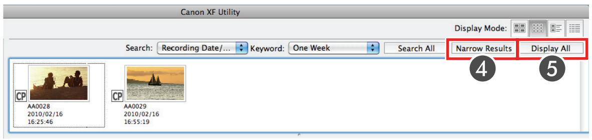
You can search for clips in the clips panel and filter the clips to display only clips that meet certain criteria.

1. In the search toolbar, select the parameter by which you want to search or filter the clips from the drop-down menu (1).
   - You can search by clip name (**Clip Name**), recording date and time (**Recording Date/Time**), status icon (**Status**), clip title (**Clip Title**), creator (**Creator**), shooting location (**Location**) or clip description (**Description**).
2. Enter or select the search criterion (2).

Parameter	Criterion
Clip Name, Clip Title, Creator, Location, Description	Enter a text string to search for. The search is case-sensitive (a≠A).
Recording Date/Time	Select **Today**, **One Week** (within one week), or **One Month** (within one month).
Status	Select **OK**, **Check** or **None** (no status icon).

3. Click **Search All** (3).
   - XF Utility will search all the clips in the selected media and display in the clips panel only those clips that meet the search criteria.
   - When you want to further narrow down and refine the search results, repeat the procedure entering additional criteria and click **Narrow Results** (4).
4. Click **Display All** (5) to reset the search and display all the clips in the selected media.





Displaying Relay Clips

After selecting a virtual media, you can display only those clips that were recorded continuously spanning two or more CF cards and are part of the same relay recording series.

1. In the media panel, select a virtual media that contains relay clips.
2. In the clips panel, select a clip with a relay recording icon , or (1).
3. Click **View** > **Show Relay Clips**.
   - Only those clips that are part of the same relay recording series as the selected clip will appear in the clips panel.
   - You can also control (^) -click on a clip with a relay recording icon in the clips panel and select **Show Relay Clips** from the contextual menu that opens (2).
4. Click **View** > **Show Relay Clips** again to display all the clips in the selected media.

Managing Clips

Using standard cut, copy, paste and drag & drop operations you can copy, move and delete the clips stored in virtual media.

Copying clips

You can copy clips from a virtual media to other media.

1. In the media panel, select the virtual media that contains the clips you want to copy (❶).
2. In the clips panel, select the clips you want to copy (❷).
   - Use Shift + Click or ⌘ + Click to select multiple clips or click **Edit** > **Select All** to select all clips.
3. Drag the selected clips to the icon of the desired media in the media panel (❸).
   - The selected clips will be copied to the selected media.
   - Click **Cancel** to interrupt the operation.
   - You can also use the menu by clicking **Edit** > **Copy** and **Edit** > **Paste**.

Moving clips

You can move clips from a virtual media to other media.

1. In the media panel, select the virtual media that contains the clips you want to move.
2. In the clips panel, select the clips you want to move.
   - Use Shift + Click or ⌘ + Click to select multiple clips or click **Edit** > **Select All** to select all clips.
3. Click **Edit** > **Cut**.
4. In the media panel, select the media where you want to move the clips and click **Edit** > **Paste**.
   - The selected clips will be moved to the selected media.
   - Click **Cancel** to interrupt the operation.

Deleting clips

You can delete clips you are not interested in keeping. Using XF Utility you can delete clips even if they are tagged with an 🆗 mark.

1. In the media panel, select the media that contains the clips you want to delete.
2. In the clips panel, select the clips you want to delete.
   - Use Shift + Click or ⌘ + Click to select multiple clips or click **Edit** > **Select All** to select all clips.
3. Press the delete (⌫) key and click **OK**.
   - You can also use the menu by clicking **Edit** > **Delete**.
   - The selected clips will be deleted.

IMPORTANT

- Be careful when deleting clips. Once deleted, clips cannot be recovered.

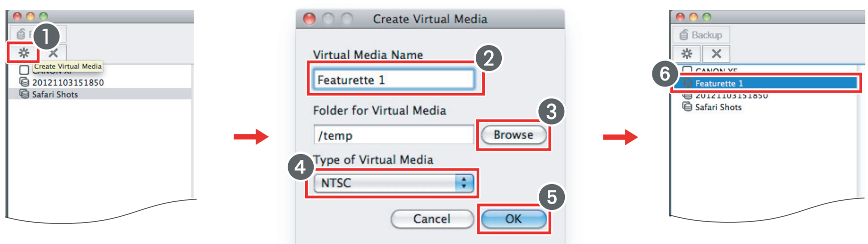
Managing Virtual Media

Virtual media are simply local folders on the computer where you can save and organize clips. You can create, set, rename or delete virtual media as necessary.

Creating virtual media

Create virtual media to easily organize clips on your computer. Virtual media have the same folder structure as CF cards so XF Utility will recognize virtual media and be able to handle them in exactly the same way as CF cards.

1. Click the **Create Virtual Media** tool ✲ (1).
   - You can also use the menu by clicking **File** > **Create Virtual Media**.
   - The **Create Virtual Media** dialog box will open.
2. Enter the desired name for the virtual media in the **Virtual Media Name** field (2).
3. To select the folder where the virtual media will be saved, click **Browse** and select the **Folder for Virtual Media** (3).
4. Select the **Type of Virtual Media** (NTSC, PAL or 24.00P) from the pull-down menu (4).
   - A virtual media can only contain clips recorded with the specified video configuration.
5. Click **OK** (5).
   - The virtual media will be created and appear in the media panel (6).



Setting virtual media

You can set as virtual media a folder on the hard disk that has data in the same folder structure as a CF card.

1. Click **File** > **Set Virtual Media**.
   - The **Set Virtual Media** dialog box will appear.
2. Select the folder to set as virtual media and click **Open**.
   - For example, if you select a folder called **/Users/user/Documents/Data** that has the same folder structure as the CF card, **Data** will appear in the media panel.

■ To remove virtual media

Follow the procedure below when you no longer wish to have the folder set as virtual media. Doing so will remove the folder from the media panel but the folder and clips in the folder will not be deleted.

1. In the media panel, select the folder set as virtual media.
2. Click **File** > **Remove Virtual Media**.
   - A confirmation dialog box will appear.

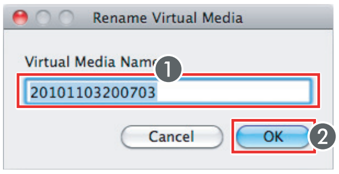
3. Click **OK**.
   - The selected folder will no longer be set as virtual media and will be removed from the media panel.

NOTES
- After you remove the virtual media, you can select **Set Virtual Media** to set the folder as virtual media again.

Renaming virtual media

You can rename virtual media, for example, to give backup folders a more descriptive name.

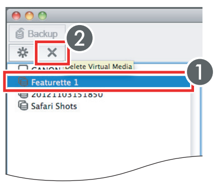
1. In the media panel, select the virtual media that you want to rename.
2. Click **File** > **Rename Virtual Media**.
   - The **Rename Virtual Media** dialog box will open.
3. Enter the desired name for the virtual media in the **Virtual Media Name** field (❶) and click **OK** (❷).
   - The virtual media's new name will appear in the media panel.



Deleting virtual media

You can easily delete virtual media and all the clips they contain, even those clips tagged with an OK mark.

1. In the media panel, select the virtual media that you want to delete (❶).
2. Click the **Delete Virtual Media** tool ✖ (❷) or click **File** > **Delete Virtual Media**.
3. If the virtual media contains clips, a confirmation message will appear. Click **OK** to delete all the clips.
   - The virtual media will disappear from the media panel.

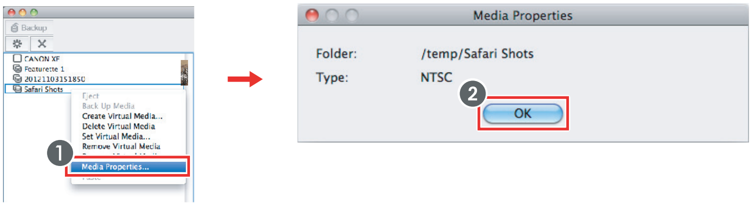


IMPORTANT
- Once deleted, clips cannot be recovered. To leave the clips and to just cancel the setting as virtual media, select **Remove Virtual Media**.

Checking a Media's Properties

You can display the properties of a media to check the type of clips (NTSC/PAL/24.00P) that are contained. Also, for virtual media, you can check the local folder on the computer that contains the files.

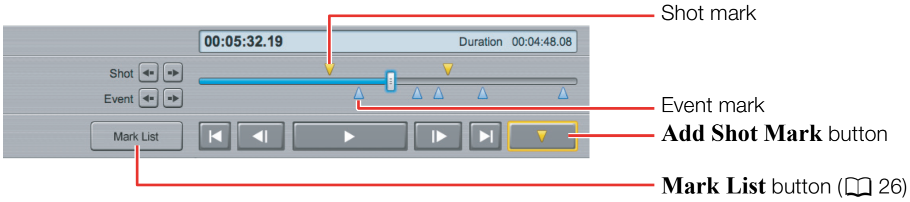
1. In the media panel, right-click on the media whose properties you want to check and select **Media Properties** from the contextual menu that opens (❶).
   - The **Media Properties** dialog box will open.
2. Click **OK** (❷) to close the dialog box.



Editing Marks

When a clip contains shot marks or event marks, these marks will appear in the preview panel, below or above the playback position slider.

Shot mark	There are two types of shot marks, **Mark 1** and **Mark 2**, that you can add freely at any point in the clip. The icon is the same regardless of the shot mark type.
Event mark	Event marks are added automatically while recording in response to predefined changes. For details, refer to the camcorder's Instruction Manual. The icon is the same regardless of the trigger event but you can check the event type in the **Details** column of the mark list.



Adding a shot mark

You can add a shot mark at any point in the clip. Only **Mark 1**-type shot marks can be added using XF Utility.

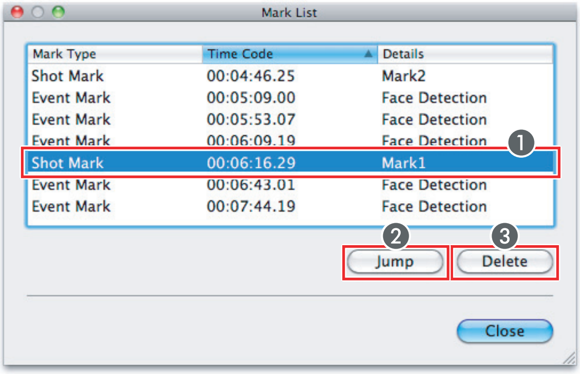
1. In the clips panel, select the clip to which you want to add shot marks.
2. In the preview panel, pause the playback at the frame you want to mark with a shot mark.
3. Click [button].
   - A **Mark 1**-type shot mark will be added at the selected position and a mark will appear over the playback position slider.
   - In some cases, the actual position of the shot mark may be off by up to 0.5 second from the selected frame.
   - You can also use the menu by clicking **Edit** > **Add Shot Mark**.

NOTES

- Up to 100 shot marks (**Mark 1** and **Mark 2** combined) can be added to a single clip.
- Shot marks cannot be added to the first frame of a clip.
- **Mark 2**-type shot marks can be added to a clip using the camcorder or the Wi-Fi Remote application.

Checking marks

You can click **Mark List** to display a list of all the shot- and event marks in a clip.



■ To jump to a marked position

Select from the mark list the shot- or event mark you want to check (❶) and click **Jump** (❷). The playback position slider will jump to the selected mark and the marked frame will appear in the video display area.

■ To delete a shot mark

Select from the mark list the shot mark you want to delete (❶) and click **Delete** (❸).

NOTES

- Clip status marks (OK, ☑) can be added or deleted by editing the **Status** field in the **Clip Properties** information window (📖 26).
- Event marks cannot be deleted.

Editing Metadata

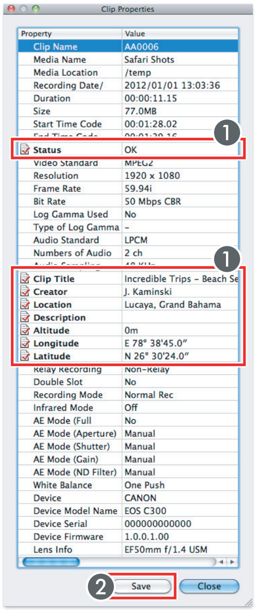
Using XF Utility you can edit the User Memo profile and other metadata associated with clips and delete custom picture files embedded within clips.

Editing the metadata associated with a clip

Although camera metadata fields are for informational purposes only and cannot be changed, you can edit some of the metadata fields associated with a clip, such as the User Memo fields.

1. In the clips panel, select the clip whose metadata you want to edit.
2. Click **View** > **Clip Properties** to display the clip properties' window.
   - You can also control (^) -click on the clip in the clips panel and select **Clip Properties** from the contextual menu that opens.
3. Edit the fields you want to change as explained below.
   - The icon displayed next to fields that were edited will change to 📝 (❶).

4. Click **Save** (②) to save the edited metadata with the clip.

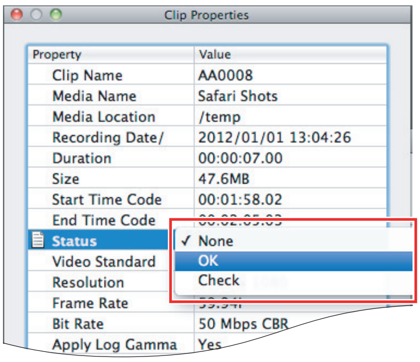


■ To add or remove an 🆗 or ☑ mark

① Select the **Status** field and click its current value.

② Select the desired value from the list.

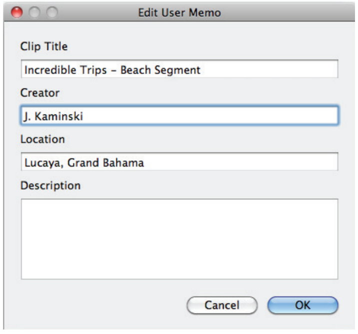
- Select **None** to remove the current mark, **OK** to add or change the current mark to an 🆗 mark or **Check** to add or change the current mark to a ☑ mark. Both marks cannot be added simultaneously.



■ To edit User Memo fields

❶ Select **Clip Title**, **Creator**, **Location** or **Description** and click its current value.
- The **Edit User Memo** dialog box will open.

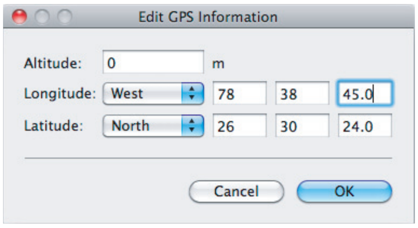
❷ Edit each field as necessary and click **OK**.
- You can enter up to 1000 characters into the description field and a maximum of 100 characters for the other 3 fields.
- If you prefer, you can leave some of the fields blank.



■ To add geotagging (GPS) information

❶ Select **Altitude**, **Latitude**, or **Longitude** and click its current value.
- The **Edit GPS Information** dialog box will open.

❷ Enter the GPS values as necessary and click **OK**.
- Enter only valid numeric values.



Deleting all embedded custom picture files

You can delete custom picture files that were embedded with clips at the time of its recording. You can only delete custom picture files from all the clips in a media; individual clips cannot be selected.

1. In the media panel, select the media from which you want to remove all embedded custom picture files.
2. Click **File** > **Delete All Custom Picture Files**.
3. A confirmation message will appear. Click **Yes** to delete all embedded custom picture files from all the clips in the media.

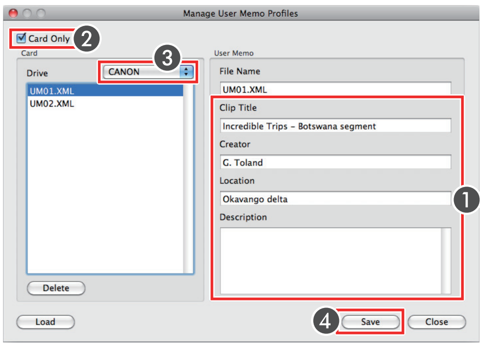
Managing User Memo Profiles

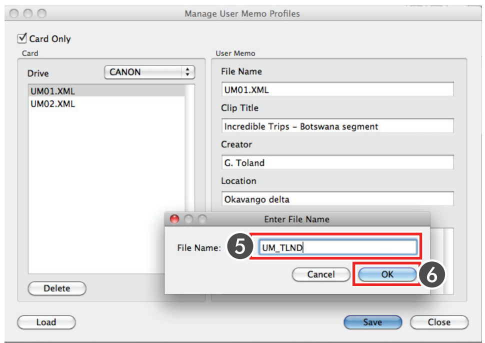
User Memo profiles contain useful identifying information, such as a clip's title, creator, shooting location or brief description. Create User Memo profiles using XF Utility and save them on an SD memory card in advance. Then, you can read a User Memo file from the memory card to the camcorder and use it for recording.

Creating a User Memo Profile

Enter the information for the User Memo profile and save the User Memo file on an SD memory card or a local folder on the computer.

1. Connect a commercially available card reader to your computer and insert the SD memory card where you want to save the User Memo files into the card reader.
2. Click **File** > **Manage User Memo Profiles**.
   - The **Manage User Memo Profiles** dialog box will open.
3. Enter the necessary information in the **Clip Title, Creator**, **Location** and **Description** fields (1).
   - You can enter up to 1000 characters into the description field and a maximum of 100 characters for the other 3 fields.
   - If you prefer, you can leave some of the fields blank.
4. Check the **Card Only** box (2), select the drive of the card reader where the SD memory card is inserted (3) and click **Save** (4).
   - The **Enter File Name** dialog box will open.
5. Enter the file name (5) and click **OK** (6).
   - The User Memo file will be saved on the SD memory card.
   - You can enter a maximum of 8 characters for the file name. Do not use any special characters other than the capital letters <A to Z> and numbers <0 to 9>.





■ To save the User Memo file in a local folder

In step 4 above, leave the **Card Only** box unchecked and click **Save**. In the dialog box that opens, select the local folder on the computer where you want to save the User Memo file, enter the file name and click Save.

NOTES

- Up to 100 User Memo files can be saved on a single SD memory card.

Editing a User Memo Profile

You can read a User Memo file previously saved on an SD memory card or in a local folder to edit the information it contains.

1. Connect a commercially available card reader to your computer and insert the SD memory card that contains the User Memo file you want to edit.
2. Click **File** > **Manage User Memo Profiles**.
   - The **Manage User Memo Profiles** dialog box will open.
3. Check the **Card Only** box and select the drive of the card reader where the SD memory card is inserted.
4. Select the User Memo file you want to edit from the list and click **Load**.
   - The content of the User Memo profile will appear in the User Memo fields in the **Manage User Memo Profiles** dialog box.
5. Edit the **Clip Title**, **Creator**, **Location** and **Description** fields as necessary.
   - You can enter up to 1000 characters into the description field and a maximum of 100 characters for the other 3 fields.
   - If you prefer, you can leave some of the fields blank.
6. Click **Save**.
   - The **Enter File Name** dialog box will open.
7. Enter the file name and click **OK**.
   - The User Memo file will be saved on the SD memory card.
   - You can enter a maximum of 8 characters for the file name. Do not use any special characters other than the capital letters <A to Z> and numbers <0 to 9>.

■ To read a User Memo file saved in a local folder

In step 3 above, leave the **Card Only** box unchecked and click **Load**. In the dialog box that opens, select the local folder on the computer that contains the User Memo file you want to edit, select the desired User Memo file and click Open.

■ To save the edited User Memo file in a local folder

In step 6 above, uncheck the **Card Only** box before clicking **Save**. In the dialog box that opens, select the local folder on the computer where you want to save the User Memo file, enter the file name and click Save.

Deleting a User Memo Profile

Using XF Utility you can delete User Memo files saved on an SD memory card.

1. Connect a commercially available card reader to your computer and insert the SD memory card that contains the User Memo file you want to delete.
2. Click **File** > **Manage User Memo Profiles**.
   - The **Manage User Memo Profiles** dialog box will open.
3. Check the **Card Only** box and select the drive of the card reader where the SD memory card is inserted.
4. Select the User Memo file you want to delete from the list.
   - If you want to check the content of the User Memo file before deleting it, and click **Load**.
5. Click **Delete**.
6. In the confirmation dialog box that opens, click **Yes** to delete the User Memo file.

Menus and Keyboard Shortcuts

Following the table for the main commands in the menu bar, you will find commands that appear in contextual menus that open when you control (^) -click certain icons.

Menu bar

Menu submenu	Keyboard Shortcut	Function	📖
Canon XF Utility			
About Canon XF Utility	–	Displays details about the software's version.	–
Preferences	⌘ + ,	Opens a window where you can set your preferences about the software's operation.	–
Services	–	Standard option for Mac OS.	–
Hide Canon XF Utility	⌘ + H	Standard option for Mac OS.	–
Hide Others	⌥ + ⌘ + H	Standard option for Mac OS.	–
Show All	–	Standard option for Mac OS.	–
Quit Canon XF Utility	⌘ + Q	Exits XF Utility.	4
File			
Eject	–	Removes a CF card from the media panel.	7
Back Up Media	–	Copies all the clips in a CF card to a virtual media in a local folder on the computer.	13
Create Virtual Media	G	Creates a virtual media.	22
Delete Virtual Media	H	Deletes a virtual media and all the clips it contains.	23
Set Virtual Media	J	Sets a folder as virtual media.	22
Remove Virtual Media	K	Cancels the setting of a folder set as virtual media.	22
Rename Virtual Media	L	Renames a virtual media.	23
Manage User Memo Profiles	–	Opens a dialog box where you can create, edit and delete User Memo files.	29
Delete All Custom Picture Files	–	Removes all the custom picture files embedded in clips in the selected media.	28
Edit			
Cut	⌘ + X	"Cuts" clips and places them in the clipboard, ready to be moved to a different media.	21
Copy	⌘ + C	Copies clips into the clipboard.	21
Paste	⌘ + V	Moves or copies clips from the clipboard to the selected media.	21
Delete	delete (⌫)	Deletes the selected clips.	21
Select All	⌘ + A	Selects all the clips in the selected media.	–
Set Thumbnail Picture	control (^) + P	Sets the selected frame as the picture used for the clip's thumbnail.	19
Add Shot Mark	T	Adds a shot mark at the selected frame.	25
Mark List	P	Displays a list of all the shot- and event marks in the selected clip.	26

Menu submenu	Keyboard Shortcut	Function	📖
Export To MXF	—	Exports the MXF stream files of the selected clips to a local folder.	15
Special Characters	—	Standard option for Mac OS.	—
View			
Large Thumbnails	Q	Changes the display mode of the clips panel to large thumbnails.	9
Small Thumbnails	W	Changes the display mode of the clips panel to small thumbnails.	
Thumbnails with Information	E	Changes the display mode of the clips panel to thumbnails with additional details about the clips.	
Detailed Information	R	Changes the display mode of the clips panel to tabular, detailed view.	
Show Relay Clips	—	Shows only clips that were recorded continuously in the same relay series as the selected clip.	20
Clip Properties	U	Displays the clip properties' window.	12
Camera Metadata	I	Displays the metadata window.	
Custom Picture	O	Displays the custom picture settings' window.	
Customize Columns	—	Opens a dialog box where you can select and reorder the fields that will appear when using the detailed view in the clips panel.	11
Refresh	—	Refreshes the display to show the latest information about the selected media.	—
Window			
Minimize	⌘ + M	Standard option for Mac OS.	—
Zoom	—	Standard option for Mac OS.	—
Bring All to Front	—	Standard option for Mac OS.	—
Canon XF Utility	—	Brings the XF Utility window to the front.	—
Help			
View Instruction Manual	—	Opens XF Utility's PDF instruction manual (this PDF file).	—

Contextual menus

Following is a list of menus that appear when you control (^) –click* certain icons. The contextual menu displayed will depend on the location of the mouse pointer at the time of clicking.

* You can right-click instead, if you are using a multi-button mouse.

Contextual menu in the media panel

Menu	Keyboard Shortcut	Function	
Eject	–	Removes a CF card from the media panel.	7
Backup Media	–	Copies all the clips in a CF card to a virtual media in a local folder on the computer.	13
Create Virtual Media	G	Creates a virtual media.	22
Delete Virtual Media	H	Deletes a virtual media and all the clips it contains.	23
Set Virtual Media	J	Sets a folder as virtual media.	22
Remove Virtual Media	K	Cancels the setting of a folder set as virtual media.	22
Rename Virtual Media	L	Renames a virtual media.	23
Media Properties	–	Shows the types of clips the media contains. Also, for virtual media, shows the local folder on the computer where the virtual media is saved.	24
Paste	⌘ + V	Moves or copies clips from the clipboard to the selected media.	21

Contextual menu in the clips panel

Menu	Keyboard Shortcut	Function	
Cut	⌘ + X	"Cuts" clips and places them in the clipboard, ready to be moved to a different media.	21
Copy	⌘ + C	Copies clips into the clipboard.	21
Paste	⌘ + V	Moves or copies clips from the clipboard to the selected media.	21
Delete	delete (⌫)	Deletes the selected clips.	21
Select All	⌘ + A	Selects all the clips in the selected media.	–
Show Relay Clips	–	Shows only clips that were recorded continuously in the same relay series as the selected clip.	20
Clip Properties	U	Displays the clip properties' window.	12
Camera Metadata	I	Displays the metadata window.	
Custom Picture	O	Displays the custom picture settings' window.	

Troubleshooting Error Messages

Following is a partial list of error messages in alphabetical order.

Cannot add a shot mark to this frame.
- A shot mark cannot be added to the first frame of a clip. Click [▶] (**Next Frame**) to advance a few frames and try adding the short mark again.

Cannot add the shot mark. A single clip can have up to 100 shot marks.
- The clip already has the maximum number of shot marks (100 marks). Remove any unnecessary shot marks and try adding the shot mark again.

Cannot back up the clips because the number of clips in the target media will exceed 999.
- The maximum number of clips in a media is 999 clips. Select a different local folder on the computer as the backup folder.

Cannot back up the media.
- Check the local folder on the computer designated as the backup folder.

Cannot change the shot mark information.
- Check the media that contains the selected clips.

Cannot copy the clip because the source clip is corrupted or cannot be accessed.
- Check the media from which you want to copy the clips (source media).

Cannot copy the clips.
- The clips could not be copied to the selected media. Check the target media.

Cannot copy the clips because the number of clips in the target media will exceed 999.
- The maximum number of clips in a media is 999 clips. Reduce the number of clips to copy or select a different target media.

Cannot copy the clips because the target media is an optical disc.
- Clips cannot be saved onto optical discs. Select a CF card or virtual media as the target media.

Cannot create the destination folder.
- Check the access privileges of the user account you are using.

Cannot create the folder.
- Check the access privileges of the user account you are using.

Unable create the folder. The folder already exists.
- A local folder with same name already exists on the computer. Check the local folder on the computer where you wanted to create the virtual media.

Cannot create the target virtual media.
- Check the local folder on the computer designated as the backup folder.

Cannot create the virtual media.
- Check the local folder on the computer where you wanted to create the virtual media.

Cannot delete.
- The User Memo file could not be deleted because the SD memory card is write-protected.

Cannot delete the custom picture files.
- Check the media that contains the selected clips.

Cannot delete the folder where the virtual media was saved.
- Check the local folder on the computer where the virtual media was saved.

Cannot detect the virtual media. OK to delete the virtual media?
- The local folder on the computer where the virtual media was saved cannot be found. Display the **Media Properties** (📖 34) and check that the displayed path exists and is correct. If you click **Yes**, the virtual media will be deleted from XF Utility; however, if the folder was renamed or moved, this will not delete the actual files from the computer.

Cannot detect the virtual media. (The path of the virtual media is ***)   The virtual media may be used by connecting the external storage that contains the virtual media. OK to delete the virtual media?**
- The local folder on the computer where the virtual media was stored cannot be found or was not correctly detected. If the virtual media was created on a removable storage device, click **No** to avoid deleting the virtual media and try again after reconnecting the removable storage device.

Cannot eject the removable drive.
- The connection with the CF card or other removable media could not be terminated. Exit XF Utility and use the Mac OS Eject function to disconnect the hardware and only then restart XF Utility.
- The connection with the external hard disk or other removable mass storage device could not be terminated. Exit XF Utility and use the Mac OS Eject function to disconnect the device and only then restart XF Utility.

Cannot export the clips because errors were found.
- There is not enough free memory. Restart the computer and try again.
- The source clip is corrupt or damaged. Use a backup copy of the clip, if you have one.

Cannot export the clips because the destination folder is not found.
- The drive or storage device that contains the folder selected as the destination folder was removed. Connect the drive or storage device to the computer.

Cannot export the clips if the selected files include more than 10 different clips with the same clip name and media name.
- As long as you select different folders (paths) in the camcorder, you can create different virtual media with the same media name and save in them clips with the same clip name. However, you cannot select more than 10 such clips when exporting MXF files. Reduce the number of duplicated clips selected.

Cannot export the MXF files.
- Check the access privileges of the user account you are using.

Cannot move the clips.
- The clips could not be moved to the selected media. Check the target media.

Cannot move the clips because the number of clips in the target media will exceed 999.
- The maximum number of clips in a media is 999 clips. Reduce the number of clips to move or select a different target media.

Cannot read the clips.
- The clip's information file or stream file is corrupt or damaged. Use a backup copy of the clip, if you have one.

Cannot rename the virtual media.
- Check the local folder on the computer where the virtual media was saved.

Cannot save.
- The User Memo file could not be saved because the SD memory card is write-protected.

Cannot save the clip properties.
- Check the media that contains the selected clips.

Cannot save the file. A memory card can store up to 100 user memo files.
- The maximum number of User Memo files on a single SD memory card is 100 files. Delete any unnecessary User Memo files or save the file on a different memory card.

Cannot set the selected folder as virtual media.
- An invalid folder was selected.
- The selected folder contains files that are not compatible or the selected folder's structure is not correct.

Canon XF MPEG2 Decoder is not installed
- Reinstall the software using the Canon XF Utilities CD-ROM. For details refer to the camcorder's Instruction Manual.

Clip not exported: Source clip is corrupted or could not be accessed.
- The clip's information file or stream file is corrupt or damaged. Use a backup copy of the clip, if you have one.

Clips recorded using different video configurations (resolution/frame rate/bit rate) cannot be merged.
- When exporting MXF files, select only clips recorded using the same video configuration.

Folder for backup files not found.
- Check the local folder on the computer designated as the backup folder.

Media not found.
- The local folder on the computer where the virtual media was stored cannot be found or was not correctly detected. Display the **Media Properties** (📖 34) and check that the displayed path exists and is correct.
- The CF card was removed. Reinsert the CF card into a card reader connected to the computer.

Memory card is not detected.
- The SD memory card was removed while you were editing a User Memo profile. Always close the **Manage User Memo Profiles** dialog box before removing he SD memory card.

NTSC/PAL/24.00P clips cannot be stored in the same media.
- Replace the CF card.

The path of the folder for backup files is incorrect.
- Check the local folder on the computer designated as the backup folder.

The selected frame could not be saved as the thumbnail picture.
- Check the media that contains the selected clips.

The user memo file is corrupted or damaged.
- Check the SD memory card or the local folder on the computer where the User Memo file is saved.
- Use a different User Memo file or create and save a new User Memo file.

Virtual media currently in use by another user.
- Wait until other users finish using the files in the virtual media before continuing the operation.

Virtual media not found or currently in use by another user. Cannot rename the virtual media.
- The local folder on the computer where the virtual media was saved cannot be found. Display the **Media Properties** (📖 34) and check that the displayed path exists and is correct.

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For support concerning this software, please contact a Canon Service Center. For details see the back cover of your camcorder’s Instruction Manual.

The information in this manual is verified as of April 2012. Subject to change without previous notice.

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